

### **ABSTRACT OF THE DISCLOSURE**

A position measuring arrangement for determining a relative position between a first object and a second object. The arrangement includes a light source having a single-mode laser light source that generates radiation and a signal generator that receives the radiation and generates displacement-dependent output signals that determine a relative position between a first object and a second object. A feedback device, wherein the laser light source interacts with the feedback device in such a way that an excitation of several modes takes place in the single-mode laser light source, and a multi-mode operation of the single-mode laser light source results.